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| 10/683,931 | 10/10/2003 | Chuan-Pei Yu | B-5259 620762-6 | 2224 |
| 36716 | 7590 | 03/01/2005 | EXAMINER | |
| LADAS & PARRY 5670 WILSHIRE BOULEVARD, SUITE 2100 LOS ANGELES, CA 90036-5679 | | | CRANSON JR, JAMES W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2875 | |

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/683,931

Applicant(s)

YU ET AL.

Examiner

James W. Cranson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10, 11 is/are rejected.
- 7) ☒ Claim(s) 8, 9 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/10/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Acknowledgment is made of applicant's foreign priority papers on the PTO 326 form.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by US 2002/0113924 to Saito et al. A direct type backlight module comprising reflector, diffuser plate, lamp, light-distributing device and a space between device and diffuser is disclosed Saito et al.

Regarding claim 1.

A direct type backlight module (figure 1) comprising:

a reflector (REF);

a diffuser plate (SCT) disposed on the reflector (REF);

a lamp (CFL) disposed between the reflector and the diffuser plate (figure 1); and

a light-distributing device (TPS), disposed between the lamp and the diffuser plate (figure 1)

for guiding light from the lamp to the diffuser plate, wherein a space is defined between

the light-distributing device and the diffuser plate (ABSTRACT, "TPS and diffusion plate SCT

are adhered to each other using a pressure sensitive adhesive double sided tape or the like thus

sealing a gap [applicant's space] defined between them")

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0184993 A1 to Yamada in view of JP-06-095105 to Yamaguchi et al.

Yamada discloses the claimed invention except a space, i.e., “wherein a space is defined between the light-distributing device and the diffuser plate”.

Yamaguchi teaches and discloses in a direct type backlight module an adjusting means (screws, 20) for changing the positions of the light-distributing device (10) and diffusion plate (9) from the outside of the direct type backlight device housing. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a space between the light-distributing device and the diffuser plate in Yamada as taught by Yamaguchi.

Yamaguchi teaches that the purpose of the space is to accommodate for thermal deformation (warp) and ultimately so that unequal brightness can be eliminated. Yamaguchi is evidence that ordinary workers in the field of backlight modules would have found the reason, suggestion, and motivation to include a spacer which restricts a warp quantity of the diffusion plate in the direction toward the light source for the reasons set forth in Yamaguchi, so that thermal deformation (warp) can be accommodated and so that unequal brightness can be eliminated.

Regarding claim 1.

A direct type backlight module (3) comprising:

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a reflector (5);

a diffuser plate (6) (prior art figure 21) disposed on the reflector (5);

a lamp (4) disposed between the reflector and the diffuser plate (figure 1); and

a light-distributing device (8), disposed between the lamp and the diffuser plate (figure 1)

for guiding light from the lamp to the to the diffuser plate, wherein a space is defined between the light-distributing device and the diffuser plate.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over modified Yamada as applied to claim 1 above, and further in view of USPN 5,249,104 to Mizobe.

Modified Yamada does not have a transparent plate with a plurality of print dots on the surface facing the lamp.

Mizobe teaches having ink dots on the surface facing the lamp (column 4, lines 27-31).

Regarding claims 2 and 3, according to claim 1, and according to claim 2, wherein the light-distributing device includes a transparent plate with a plurality of print dots on the surface facing the lamp and that each of the print dots is an ink.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide modified Yamada with having ink dots on the surface facing the lamp as taught by Mizobe. The purpose is to provide uniform distribution of light (column 4, lines 33-41).

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over modified Yamada as applied to claim 1 above, and further in view of USPN 4,985,809 to Matsui.

Modified Yamada does not have a transparent plate with a plurality of print dots on the surface facing the diffuser plate.

Matsui teaches having ink dots on the surface facing the diffuser plate (ABSTRACT).

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Regarding claims 4 and 5, according to claim 1, and according to claim 4, wherein the light-distributing device includes a transparent plate with a plurality of print dots on the surface facing the diffuser plate and that each of the print dots is an ink.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide modified Yamada with having ink dots on the surface facing the diffuser plate as taught by Masaki. The purpose is to improve brightness and uniformity of light (ABSTRACT).

Claims 6, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over modified Yamada as applied to claim 1 above, and further in view of US 2003/0081402 A1 to Jeon et al..

Modified Yamada does not have a prism sheet.

Jeon et al. teaches having prism surfaces on both side of the light-distributing device (figure 5A).

Regarding claim 6, according to claim 1, claim 7, according to claim 6, and claim 10 according to claim 1, including prism sheet, prism sheet facing lamp, prism sheet facing diffuser plate and prism sheet on diffuser plate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide modified Yamada with prism sheet, prism sheet facing lamp, prism sheet facing diffuser plate and prism sheet on diffuser plate as taught by Jeon et al. The purpose is to provide uniform distribution of light.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over modified Yamada as applied to claim 1 above, and further in view of USPN 6,239,851 to Hatazawa et al.

Hatazawa et al teaches the use of a light-distributing device with plural indexes of refraction.

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Modified Yamada does not have plural indexes of refraction in the light-distributing device. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide modified Yamada with a light-distributing device having plural indexes of refraction. The purpose is to provide a light-distributing device having a very high utilization efficiency column 2, lines 26-29).

Allowable Subject Matter

Claims 8,9 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claim 8, according to claim 1 adds the limitation that a metallic film with a plurality of holes is included. This limitation, combined with claim 1 limitations is not found or taught in the art of record.

Claim 9, depends from claim 8 and would be allowable for the same reasons.

Claim 12, according to claim 11 adds the limitation that indexes of refraction are increased from a center of the light guide plate to a periphery of the light guide plate. This limitation, combined with claim 1 limitations is not found or taught in the art of record.

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Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are US 2004/0032725 A1 to Hsieh et al., US 2004/0004684 to Yang et al., and US 2003/0026085 A1 to Ueda et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James W. Cranson whose telephone number is 571-272-2368. The examiner can normally be reached on Mon-Fri 8:30A.M.- 5:00P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandy O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).




Stephen Husar
Primary Examiner